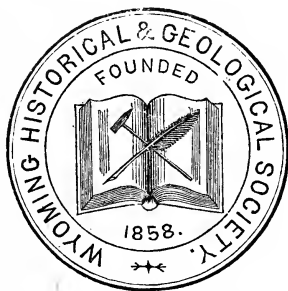


PROCEEDINGS

—OF—

The Wyoming Historical and Geological Society,

FOR THE YEAR ENDING FEBRUARY 11, 1882.



PUBLICATION No. 3.

WILKES-BARRE, PA.
PRINTED FOR THE SOCIETY.
1882.

UNIVERSITY
OF PITTSBURGH



LIBRARY

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PROCEEDINGS.

Stated Meeting, March 4th, 1881.

Present, ten members.

President Miner in the Chair.

Contributions to the Library and Cabinet were formally acknowledged.

A letter of inquiry from Spencer F. Baird, United States Commissioner of Fisheries, regarding the early shad fisheries of the North Branch of the Susquehanna River, was read, and referred to the Recording Secretary, with the request that he furnish the desired information, and report to the Society.

Rev. Andrew Brydie, E. Sterling Loop, Mrs. Emily L. Wright, Mrs. Mary C. Parrish, Mrs. Lydia M. Maxwell, and Mrs. Augusta McClintock were elected members.

It being announced that Ralph D. Lacoe, Esq., of Pittston, had recently made the discovery of reptile tracks on the coal slate of this valley, he was requested, by resolution, to be present at the next regular meeting of the Society, and exhibit the specimens of reptile tracks recently discovered by him, and also to prepare for the Society a brief memorandum of the locality and circumstances of their discovery.

Dr. Wm. H. Egle, of Harrisburg, having intimated his willingness to read his lecture on "Capt. Lazarus Stewart and his Paxtang Boys" before the Society, and the same having been brought to the attention of the meeting, it was

Resolved, That notice be sent to Dr. Egle thanking him for his courteous offer and the acceptance of it, and requesting him to fix upon such an evening for its delivery as may suit his convenience.

A paper, entitled "A Geological Survey of the Loyal Sock and North Mountain Regions," was read by Col. R. Bruce Ricketts, and elicited considerable discussion.

The Society tendered a vote of thanks to Col. Ricketts.

Stated Meeting, April 1st, 1881.

Present, ten members.

President Miner in the Chair.

Formal acknowledgment of contributions to the Library and Cabinet were made.

P. M. Osterhout, Tunkhannock, Pa., and J. Vaughn Darling, Wilkes-Barre, were elected members.

The Corresponding Secretary read a communication from Dr. Egle fixing upon the evening of May 30th as the time for the delivery of his lecture before the Society.

The fossil reptile tracks from the anthracite coal measures, kindly forwarded for the inspection of the members of the Society, were produced for examination, and the following communication accompanying the same, addressed to the Corresponding Secretary, was read:

In compliance with the request of your Society, transmitted in your esteemed favor of the 8th inst., I have the honor to submit the following memorandum of the locality and circumstances of the discovery of the saurian tracks in my possession:

First. The geographical locality of their occurrence is about one mile east of Pittston, on a lot of the Butler Coal Company, in an excavation made to arrest the extension of a fire, in the abandoned portion of the mine, that was then (1868-9) threatening the destruction of the shaft and breaker, and damage to the adjoining properties.

Second. Their geological position is in the true coal measures of the carboniferous period, and near the centre of the middle group of the

productive coal seams, as grouped by Prof. Lesquereux in his table of the distribution of coal plants in the "Coal Flora of the United States." Their exact vertical horizon is within the twenty feet immediately overlying the "Pittston" or "Baltimore" coal seam, and in a fine grained sandstone, which, with a thin stratum of slate, separate the main coal and the small coal seam, or "rider," that generally overlies it in and around Pittston.

Third. The whole number of tracks known to the writer to have been found at this locality is about forty, seventeen of which are upon the two slabs this day sent you for examination. The variations in size show them to belong to two or more individuals; whilst the difference in relative position, anterior and posterior tracks, may be the result of varied circumstances under which they were made, or of specific difference in the animals making them. There can scarcely be a doubt of their all belonging to one genus. The smallest of these tracks are larger than the largest described by Prof. Dawson from the coal measures of Nova Scotia, whilst the largest are considerably smaller than "*Sauropus Primevus*" of Dr. Lea from the red sandstone, near Pottsville. I have not had time to make further comparisons. They may prove to belong to one of the Nova Scotia genera, or to be the same found by Dr. King in Western Pennsylvania, of the latter of which I have no definite description.

Fourth. The following vegetable remains were found in the same stratum, viz.: Alethopteris, one species; Annularia, two species; Asterophyllites, one; Calamites, five; Cordaicarpus, two; Carpolithes, one; Cardiocarpus, one; Caulopteris, two; and Cordaites, four species; of Knorria, one species; Lepidostrobus, two; Lepidophyllum, three; Rhabdocarpus, two; Ulodendron, one; Megaphitum, one; Neuropteris, two; Pecopteris, nine species; and Trigonocarpus, two; besides a number of undetermined forms. This abundant flora, if not used as food by the reptilian inhabitants it shaded, would sustain innumerable insects, and lower, if not higher forms of life, furnishing food to the numerous fish of that period, that in turn served as food for the stronger.

I had neglected to remark the two trails* on slab No. 2504, which do not, from their position, seem to have been made by the tail or the armor of the animal, but could have been by some article of food carried in its mouth extending to one side and hitting the soft mud, thus producing the series of indentations, of which the slab presents the obverse. The variation of the trails from being parallel with the

*It has been suggested that these trails are the tracks of a large trilobite.

rows of tracks would be produced by a gradual inclination of the head to that side.

With hearty thanks for the honor conferred by your kind invitation, and sincere regret that I am unable to meet with you at this time, I am,

Very respectfully,

R. D. LACOE.

PITTSTON, PA., *March 29th, 1881.*

A vote of thanks was tendered to R. D. Lacoe, Esq., for his kindness in forwarding these specimens for examination, and for the interesting communication accompanying them.

The Recording Secretary read from the proceedings of the American Philosophical Society a description of an old map of America, and exhibited three original copies of the map for the inspection of the members.

Stated Meeting, May 6th, 1881.

Present, eight members.

Hon. E. L. Dana in the Chair.

A number of gifts were received, and the customary acknowledgments made.

Hon. Stanley Woodward was elected a member.

Dr. Charles F. Ingham, Chairman of the Cabinet Committee, read the following letter, addressed to the Recording Secretary, from Hon. Eckley B. Coxe:

DRIFTON, LUZERNE CO., PA., *April 25th, 1881.*

Dear Sir:

I have just read the report of the Cabinet Committee of the Wyoming Historical and Geological Society, and feel rather ashamed that, having lived so long in Luzerne county, I have done nothing towards assisting in placing the collections of the Society on a proper footing. I enclose you check for two hundred and fifty dollars, which amount I wish to be placed at the disposal of the Cabinet Committee for the purpose of assisting in arranging or completing the collection

in any way that the Committee may think most advisable, such as cases, labelling, or classification, or procuring specimens, etc.

Yours, very truly,

E. B. COXE.

On motion, a vote of thanks was tendered to Mr. Coxé for his liberal contribution, and his letter was ordered spread upon the minutes.

The Chairman appointed the following Committee to make the necessary arrangements for the reading of Dr. Egle's lecture before the Society: Sheldon Reynolds, A. H. McClintock, Sam F. Wadhams, and Rev. H. E. Hayden.

Stated Meeting, June 3d, 1881.

Present, ten members.

President Miner in the Chair.

A number of gifts were received, and the customary acknowledgments made.

Rev. H. L. Jones, Andrew F. Derr, Dr. G. W. Guthrie, and Geo. B. Kulp were elected members.

The Committee appointed at the May meeting to make arrangements for Dr. Egle's lecture reported as follows:

To the President and Members:

The Society having no room adapted to the seating of an audience such as the occasion would call together, the lecture-room of the First Presbyterian Church, through the kindness of the officers of the church, was secured. Two hundred and forty notes of invitation were sent to members and others, and a general invitation to the public was given through the newspapers.

A large and appreciative audience assembled, notwithstanding the addresses incident to the exercises of Decoration Day were delivered the same evening at Music Hall. The lecturer was introduced by A. T. McClintock, LL. D., and spoke about an hour on the subject of "Lazarus Stewart and his Paxtang Boys." At the conclusion of

the address a vote of thanks, moved by E. P. Darling, Esq., and seconded by Judge Dana, was passed.

As there was no charge for admission to the lecture, the incidental expenses incurred, amounting to about twelve dollars, were paid by the Treasurer of the Society.

SHELDON REYNOLDS, *Chairman*.

WILKES-BARRE, *June 3d, 1881.*

The report was received and filed.

The Corresponding Secretary was directed to communicate the thanks of the Society to Dr. Egle for his interesting address.

The meteorological report for the preceding month was then read, and ordered filed.

An extended report on the "Early Shad Fisheries in the North Branch of the Susquehanna River," prepared by Dr. Harrison Wright, in answer to the letter of inquiry from Prof. Baird, United States Commissioner of Fisheries, which letter was referred to the Recording Secretary at the March meeting, was read. The report gave a detailed account of the fisheries from the first settlement of the North Branch to the time of their failure, showing their number, location, and money value. The reading was listened to with marked interest, and the report directed to be sent to Prof. Baird.*

Stated Meeting, July 1st, 1881.

Present, six members.

Hon. E. L. Dana in the Chair.

A number of contributions were received, and the customary acknowledgments made.

L. C. Paine and Charles Parrish were elected members.

The meteorological report for the preceding month was read, and ordered filed.

* The report is shortly to be published in the Census Bulletin on Fisheries.

The Recording Secretary read the following communication, addressed to himself, from Judge Barnum, and presented in his name the accompanying letter from Hon. Joseph Hopkinson, describing the origin of the song "Hail Columbia":

HARVEY'S LAKE, *June 22d, 1881.*

Dear Sir:

In reply to your letter I will state, that in the Summer of 1840 Hon. Joseph Hopkinson, of Philadelphia, the author of "Hail Columbia," visited Wilkes-Barre, and while there was the guest of Hon. George W. Woodward. Upon learning of his presence in town the Wyoming Band, of which I was a member at the time, gave him a serenade, and, among other pieces, played "The President's March," better known as "Hail Columbia," as a compliment to him. In response, Judge Hopkinson returned his thanks, and in the course of a few remarks gave an account of the circumstances under which the song was written. Thinking that the song would be cherished and sung as long as our Government existed, I deemed it important to obtain from the author an account of its origin in his own handwriting and over his own signature. I, therefore, sent him a note the next morning requesting him to write out a detailed account of the circumstances attending the production of the song which he had referred to the previous evening, and furnish the same to me, as an officer of the band, for preservation. He replied that, as soon as he could do so after his return to Philadelphia, he would cheerfully comply with my request. In the course of time, I received the letter from the Judge containing a full and very interesting account of the circumstances under which one of our most popular national songs was written, and have, with great pleasure, placed it in your hands as an officer of the Historical Society for safe keeping and reference. The letter was published some years ago in the *Wilkes-Barre Record of the Times*, and, excepting a few days while in the hands of Wm. P. Miner, Esq., at that time the editor of the paper, for the purpose of said publication, it has never been out of my possession, until sent to you the other day. It has never been copied.

Hoping this explanation of the letter of Judge Hopkinson will be satisfactory, I subscribe myself with much respect,

Yours, very truly,

CHARLES T. BARNUM.

JUDGE HOPKINSON'S LETTER.

PHILADELPHIA, *August 24th, 1840.**Dear Sir:*

I have not forgotten, nor intended to neglect, my promise made to you at Wilkes-Barre, in compliance with your very flattering request, to give you an account of the occasion for which the song of "Hail Columbia" was written. My engagements of business here, added to an absence from home, has, indeed, delayed the performance of this promise beyond a reasonable period, but I hope you will accept it at this time, and also my apology for the postponement.

The song was written in the Summer of 1798, when a war with France was thought to be inevitable, Congress being then in session in Philadelphia deliberating upon the important subject. The contest between England and France was then raging, and the people of the United States were divided into parties for the one side or the other; some thinking that policy and duty required us to take part with republican France, as she was called; others were for our connecting ourselves with England, under the belief that she was the great preservative power of good principles and safe government. The violation of our rights by both belligerents was forcing us from the just and wise policy of President Washington, which was to do equal justice to both, to take part with neither, but to keep a strict and honest neutrality between them. The prospect of a rupture with France was exceedingly offensive to the portion of the people which espoused her cause, and the violence of the spirit of party has never risen higher, I think never so high, as it did at that time upon this question. The theatre was then open in our city. A young man belonging to it, whose talent was as a singer, was about to take his benefit. I had known him when he was at school. On this acquaintance, he called on me one Saturday afternoon, his benefit being announced for the following Monday. He said he had no boxes taken, and his prospects were that he would suffer a loss instead of deriving a benefit by the performance, but that if he could get a patriotic song adapted to the tune of the "President's March," he did not doubt of a full house; that the poets of the theatrical corps had been trying to accomplish it, but were satisfied that no words could be composed to suit the music of the march. I told him I would try for him. He came the next afternoon, and the song, such as it is, was ready for him. It was announced on Monday morning, and the theatre was crowded

to excess, and so continued night after night for the remainder of the season, the song being *encored* and repeated many times each night, the whole audience joining in the chorus. It was also sung, at night, through the streets by large assemblies of citizens, including members of Congress. The enthusiasm was general, and the song was heard, I may say, in every part of the United States. The object of the author was to get up an *American spirit* which should be independent of and above the interests, passions, and policy of both belligerents, and look and feel exclusively for our own honor and rights. Not an allusion is made to either France or England, or the quarrel between them, or to which was most in fault in their treatment of us. Of course, it found favor with both parties, at least neither could disavow the sentiments it inculcated. It was truly *American*, and nothing else, all through; and the patriotic feelings of every American heart responded to it.

Such is the history of this song, which has endured infinitely beyond any expectation of the author, and beyond any merit it can boast of, except that of its being truly and exclusively American in its sentiments and spirit.

Very respectfully, your obedient servant,

JOS. HOPKINSON.

The Secretary was directed to thank Judge Barnum, in the name of the Society, for his interesting historical contribution.

Stated Meeting, October 7th, 1881.

Present, six members.

Hon. E. L. Dana in the Chair.

A large number of gifts were received, and the customary acknowledgments made.

Thomas H. Atherton, Richard Sharpe, Jr., and Mrs. Eliza R. Miner were elected members.

A tabular statement of observations made by John H. Dager, United States Assistant Engineer, and accompanying letter, giving the daily height of water in the Susque-

hanna River at this point for the past two years, was read by the Recording Secretary.

Mr. Dager's report was referred to the Committee on Publication.

The meteorological observations for the months of July, August, and September were read and filed.

The Recording Secretary read the following note on the Scranton peat bog, and the discovery in it of a mineral resembling dopplerite:

Being in Scranton on business some time in July last, my attention was called to the discovery of a curious black gelatine substance in the swamp at that place, where excavations were being made for the new Lackawanna County Court House. Not having the leisure at that time to make an examination of the bog, I secured such specimens for the Society as were available, and promised myself the pleasure of an examination at a later day. Some ten days subsequently I received a dispatch from Hon. Lewis Pughe stating that fresh excavations had been made, and specimens could be secured. I at once repaired to Scranton, and in company with Mr. Snaith made an examination of the excavations. I found that the old marsh had been filled in with cinders from the Scranton Steel Works. These had been removed, and beneath were found some three feet of stumps, logs, and roots; beneath which was a layer of peat from eight to nine feet in thickness; beneath which was a layer of greyish humus from two to three feet in thickness, and at right angles to this layer of humus, and running through it, a black gelatine-like substance in streaks from half an inch to two inches in thickness, which substance seems to have collected from the humus, and appears to be a variety of the mineral, dopplerite. This last mentioned substance has created some considerable excitement, as it is supposed by some to represent the primary stages of the formation of our coal deposit. An ingenious hypothesis as to its formation has been advanced by Mr. Theodore Cooper, of Scranton, viz.: the infiltration of carbonaceous matter from the humus into a siliceous jelly, formed by action of water on the silica in the vegetation. A careful analysis will show whether the percentage of ash will warrant the presence of silica sufficient to carry out Mr. Cooper's theory.

Through the kindness of Mr. Snaith a large number of good specimens were secured, and on my return to Wilkes-Barre duplicates

were sent to the Smithsonian Institution, Lafayette College, Yale College, American Institute of Mining Engineers, and to the Museum of the Second Geological Survey of Pennsylvania. Prof. Dana, in acknowledging the suite of specimens sent to Yale College, under date of August 23, 1881, says: "The specimens are of great interest, and certainly serve to illustrate the passage of vegetation toward true coal. The covering of furnace cinder over the peat make the conditions more like those attending the formation of the herb coal than it is when the peat is uncovered, it excluding the air and putting the peat under pressure. In the case of true coal beds the pressure was in general vastly greater, and the confinement, perhaps, closer, for the overlying rocky beds have often been hundreds or thousands of feet of thickness. The jelly-like material I do not look upon as essential to the process. Indeed, I judge from what is known of such jelly-like masses found in peat beds that it is not the composition of coal. See my large Mineralogy, page 749. Only a chemical analysis could settle the question."

In closing I would state that the Scranton peat bog shows a fine example of the first stages of the formation of coal by exhibiting the transition state from peat to humus. Whether the jelly-like substance is another transition stage from the humus to coal is a matter still to be determined. It is not an impossibility, and would not, certainly, require greater mechanical or chemical forces to produce it than were at work in the transition from the humus to the substance resembling dopplerite. The analysis of dopplerite, as given by Prof. Dana, are:

	CARBON.	HYDROGEN.	OXYGEN AND NITROGEN.	
1.	51.09	5.29	42.59	1.03 Schroetter.
2.	55.94	5.20	38.86	Muehlberg.
3.	56.63	5.58	37.79	Muehlberg.

From No. 1, 5.86 of ash are excluded; from No. 2, 5.18; from No. 3, 5 to 14.2 p. c. All were dried. Schroetter found the loss of water 78.5 p. c., and Muehlberg at 110°C.; for No. 2, 20.04 p. c. for an air dried specimen; for No. 3, 81.8 p. c. for a jelly-like specimen, and 19.7 for an air dried.

An analysis of the Scranton substance made by the State Chemist for the Second Geological Survey of Pennsylvania, gave

Water @ 212°F.	66.758
Volatile matter	9.826
Fixed carbon	4.012
Ash	19.404

100.

Stated Meeting, December 2d, 1881.

Present, nine members.

Sheldon Reynolds, Esq., in the Chair.

A number of gifts were received, and the customary acknowledgments made.

J. H. Bowden was elected a member.

Dr. Wm. H. Egle, of Harrisburg, was proposed by the Chairman for honorary membership.

The meteorological observations for the past month were read and filed.

The Recording Secretary read "a description of certain noteworthy gold and silver coins of German potentates and rulers," it being a translation of John Leonhard Weidner's "Emblemata Elzevir Amsterdam, 1655."

Stated Meeting, January 6th, 1882.

Present, thirteen members.

Dr. Charles F. Ingham in the Chair.

A number of gifts were received, and the customary acknowledgments made.

Dr. Wm. H. Egle was elected to honorary membership.

Rev. H. E. Hayden, in the name of Dr. Wm. H. Egle, presented the Society with an historical manuscript, it being a letter dated June 2d, 1775, signed by Captain Stephen Fuller and Captain Robert Durkee, and addressed "To Samuel Harris, some where skulked in the woods, in the town of Westmoreland, where Shawnee John can find him as he say." Mr. Hayden read an explanatory note and a sketch of the parties connected with the letter.

The contribution was properly acknowledged.

George B. Kulp, Esq., on the part of the Council of the City of Wilkes-Barre, presented the old borough seal, accompanied by the following certificate of the City Clerk:

CITY CLERK'S OFFICE,
WILKES-BARRE, PA., *January 5th, 1882.*

To the Wyoming Historical and Geological Society:

I hereby certify that the following resolution, offered by Mr. Anning Dilley, was unanimously adopted at a meeting of the City Council, held January 3d, 1882:

Resolved, That the old borough seal be presented to the Wyoming Historical and Geological Society.

Attest the seal of the city:

[SEAL.]

S. O. JONES, *City Clerk.*

Mr. Kulp read the following memorandum in regard to the organization of Wilkes-Barre into a borough, and the resolutions of the first Council as to purchasing the above seal:

On the 19th day of March, A. D. 1806, Thomas McKean, Governor of the Commonwealth of Pennsylvania, affixed his signature to an Act of the General Assembly, entitled "An Act to erect the Townplot of Wilkes-Barre and its vicinity, in the County of Luzerne, into a Borough."

On Tuesday, May 6th, A. D. 1806, an election was held for corporate officers of the new borough, when Jesse Fell was elected Burgess; George Griffin, High Constable; Peleg Tracý, Town Clerk; and the following persons as Councilmen: Lord Butler, Arnold Colt, Matthias Hollenback, Samuel Bowman, Nathan Palmer, Charles Miner, and Roswell Welles.

On Saturday, May 10th, A. D. 1806, the above Councilmen, with the exception of Mr. Welles, met at the Court House, and were sworn into office.

On Monday, May 12th, A. D. 1806, the Town Council elected Lord Butler, President of the Council.

On Wednesday, May 14th, A. D. 1806, the following resolution was offered by Charles Miner, which was adopted: "*Resolved*, That the Clerk of the Council be, and he is hereby, authorized to procure a seal for the corporation of this borough, the figure on which shall be a *bee*

hive, with this motto on the verge of the circle, 'Pattern after us,' and upon the lower verge of the circle, 'Borough of Wilkes-Barre.'"

On the 1st of November, A. D. 1806, the Borough Council met, and Mr. Roswell Welles offered the following resolution: "*Resolved*, That the President draw his warrant on the Treasurer of the corporation in favor of Jacob Keithline for ten dollars, it being for a seal;" which was ordered to lay on the table. After consideration, the above resolution was called up and adopted, and an order drawn in favor of Jacob Keithline for ten dollars.

The seal did duty until May 4th, 1871, when Wilkes-Barre was incorporated into a city, at which time a new seal was adopted.

The gift was properly acknowledged.

The meteorological observations for the past month were read and filed.

Hon. Edmund L. Dana read an historical sketch, entitled "Incidents in the Life of Capt. Samuel H. Walker, Texan Ranger, killed at Huamantla, Mexico, whose sword is in the possession of this Society."

The paper was referred to the Committee on Publication.

Annual Meeting, February 11th, 1882.

Present, seven members.

Calvin Parsons, Esq., in the Chair.

A number of gifts were received, and formally acknowledged.

D. H. Frantz, Wm. J. Harvey, and Nathaniel Wolfe were elected members.

The name of J. Blair Linn, of Bellefonte, Pa., was proposed for honorary membership.

On motion, it was—

Resolved, That the Secretary and Treasurer be directed to prepare a design for a new certificate of membership.

The meteorological observations for the month of January were read and filed.

Sheldon Reynolds, Treasurer, read the following report of the condition of the finances of the Society:

Treasurer's Report for Year ending February 11, 1882.

SHELDON REYNOLDS, *Treasurer*,

In Account with WYOMING HISTORICAL AND GEOLOGICAL SOCIETY.

DR.

CR.

To Cash on hand . . . \$	36 34
Annual Dues of Mem- bers	285 00
Entrance Fees of 21 Members	105 00
For Rent of Room . .	73 00
For Sale of Books and Pamphlets	11 00
For Sale of Publication No. 2	49 50
Gift to Cabinet from Hon. E. B. Coxe . .	250 00
	\$809 84

Rent to Jan. 1, 1882 .	\$250 00
Insurance for 3 years, to Feb. 13, 1884 . .	64 00
Stationery	15 65
Books and Magazines .	40 31
Postage	4 80
Print'g Publication No.2	57 60
Printing Notices, etc .	3 50
Freight and Express Charges	9 40
Gas and Fuel	13 25
Janitor	6 75
Improvements	26 01
Repairs	5 30
Minerals and Shells . .	173 77
Sundries	8 50
Cash on hand	131 00
	\$809 84

Respectfully submitted,

SHELDON REYNOLDS, *Treasurer*.

On motion, the above report was received and ordered filed.

The Cabinet Committee made the following report on the Society's collections:

To the President and Members:

Your Committee would respectfully report, that during the time since the last preceding report, the cabinets of the Society have constantly increased in value and importance, both by contributions and

by purchase of materials, and this to a degree not apparent on inspection of the several collections; the reasons for which are the restricted means at command of the Committee by which to obtain additional light, heat, furniture, etc., in the hall, for the proper display of the many valuable objects acquired; as also in part from want of the expected attention and aid from members, by which the promised work would have been advanced beyond its present condition; while the duties of your Committee would have been thereby brought within more reasonable limits of cost of their time and labor. The several changes and improvements promised in the last report, having reference to arrangements in the hall, have, in the main, been carried out; but, at best, they fall far short of providing the required conveniences for an exhibit of the importance, utility, and value of the collection.

The work of determining and arranging minerals has been continued, though under the disadvantage of long delays, from want of an adequate source of heat for the main hall, a subject adverted to in the last preceding report. A reconsideration of the subject of classification of the minerals resulted in a change from the system of Prof. Leonhard, as announced in preceding report, to that of Prof. Dana; the latter being most convenient in this country, in consequence of its very general adoption. The transfer and rearrangement of specimens necessary to effect this change are now being made, and they will in a short time be completed. The value of this cabinet has been increased some by gifts from time to time through the past year, but its very material increase was by purchase of about one hundred type specimens not heretofore represented in the collection, or if so, in such obscure and imperfect forms as to be almost useless. This purchase includes a number of the most rare and interesting minerals. By this addition, which will in a short time be properly labeled and placed, this cabinet, although yet requiring many additions, will, nevertheless, present to those seeking improvement in this important branch of science a welcome and ready source of knowledge.

The additions in the Conchological Cabinet during the year have been almost entirely by purchase. About one hundred and eighty-nine species, representing seventy genera, have lately been added; and the collection is now being rearranged to accommodate this accession; and the work of catalogue entries, numbering, and labeling is now near completion. This collection, though comparatively small, presents valuable advantages to the student, as he can thereby acquire at least the elementary knowledge requisite for the pursuit of the science to its practical and indispensable application in the sciences of palæontology and geology.

It is proper, in this connection, to state that the improvements of the cabinets here mentioned are results of the liberality of our friend and associate, Hon. Eckley B. Coxe.

To the Numismatic Department many valuable contributions have been made during the year. The work of systematic arrangement, commenced by Rev. Mr. Hayden, as stated in preceding report, has been continued by him, and is at present so advanced that a more exact estimate of the value of this collection is now readily obtained, and the consequent appreciation has led to the conclusion that not alone the Committee, but the Society, would be held by the public very remiss should these valuable and interesting historic mementos be lost by accident of fire, or otherwise; and in this view it was deemed advisable to contract for a proper safe having accommodations for all the silver coins and medals and a greater part of the more valuable copper coins. This safe will cost one hundred and twenty-five dollars.

To our Palæobotanical Collection but few additions have been made the past year. The want of space in the room makes it undesirable that any large additions should be made before the work of selecting for exchanges, etc., shall be accomplished. Early last Summer Prof. Lesquereux paid us a second visit, and again contributed by devoting a couple of hours of his valuable time to the classification of the fossils of this department, and promised us a week's aid in the following Fall. We regret to learn that protracted illness was the cause of disappointment.

In behalf of the Wilkes-Barre Chapter of the Agassiz Association an application was made for the privilege of meeting weekly in the rooms of the Society for the purpose of instruction on the subjects of mineralogy, conchology, and geology, obtainable only from proper cabinets and collections. The object being in such direct accord with the professed design of our Society, your Committee deemed it proper, without further formalities, to grant the request; and we now have the pleasure of stating that the progress made by the young pupils within the short period since their organization (April, 1881) gives unquestionable proof of the efficiency of this practical method of instruction in these branches of science; and that without such special advantages as are now here obtainable, instruction on these subjects would be totally unavailing.

Your Committee would further report, that it has taken upon itself the responsibility of granting to the Luzerne County Medical Society the privilege of holding its bi-monthly meetings in the library room of this Society, and have furnished light and fuel for the meetings. The additional expense to this Society from these meetings has been

but small, whilst the the advantages to the Medical Society in having ample quarters and a permanent place of holding its meetings are fully realized and properly appreciated by the members of that Association.

Respectfully submitted,

CHARLES F. INGHAM, *Chairman.*

On motion, the report was received and ordered filed.

The Assistant Librarian made the following report:

Report of Librarian of the Wyoming Historical and Geological Society for the Year ending February 11, 1882.

The Library contained February 11, 1881:

Volumes	2,838
Pamphlets (unbound)	2,325
Periodicals	141
Manuscripts	574

Total Number of Titles 5,878

There has been added to these during the past year the following:

By Contribution—

	BOOKS.	PAMPHLETS.	MSS.	PERIODICALS.
History	106	39		
Geology	128	1		
Scientific	35	63		
U.S. Documents	189	4		
State "	61	1		
Educational	11	4		
Miscellaneous	131	65	11	38
Total	661	177	11	38

By Purchase—

Volumes	38
Periodicals	50
Total Increase of Titles during the Year	975

Grand Totals—

Volumes	3,537
Pamphlets (unbound)	2,502
Periodicals	229
Manuscripts	585
Grand Total of Titles	6,858

The necessity for funds for binding and securing the many prints, newspapers, pamphlets, etc., that rapidly accumulate becomes more urgent each year, and I deem it proper to call attention again to the remarks made in the last preceding report in reference to this subject:

"We have at least a hundred volumes which should be bound, and it is to be regretted that funds cannot be raised to do it at once. We have, also, a very large number of newspaper clippings which should be properly mounted and bound. A sum of, say \$300, devoted to this department at the present time, while the work of arranging and completing is in progress, would be of special service to the Society."

Respectfully submitted,

SAM F. WADHAMS, *Ass't Librarian.*

On motion, the report was received and ordered filed.

The Society then proceeded to the election of officers for the ensuing year. E. L. Dana and Rev. H. E. Hayden were appointed Tellers, who announced the following to have received a majority of all the votes cast, and they were thereupon declared duly elected:

PRESIDENT,

CHARLES F. INGHAM, M. D.

VICE-PRESIDENTS,

E. R. MAYER, M. D.,	REV. H. L. JONES,
CALVIN PARSONS,	L. C. PAINE.

TREASURER,

SHELDON REYNOLDS.

RECORDING SECRETARY,

HARRISON WRIGHT.

CORRESPONDING SECRETARY,

HON. E. L. DANA.

LIBRARIAN,

SAM F. WADHAMS.

COMMITTEE ON CABINET,

CHARLES F. INGHAM, M. D., HARRISON WRIGHT,
A. H. McCLINTOCK.

COMMITTEE ON FINANCE,

J. WELLES HOLLENBACK, JAMES P. DENNIS,
REV. H. E. HAYDEN.

COMMITTEE ON PUBLICATION,

SHELDON REYNOLDS, G. MORTIMER LEWIS,
CALVIN PARSONS.

CONTRIBUTORS TO THE LIBRARY AND CABINET

OF THE

WYOMING HISTORICAL AND GEOLOGICAL SOCIETY

FOR THE YEAR ENDING FEBRUARY 11, 1882.

American Philosophical Society	Philadelphia.
C. A. Ashburner	Philadelphia.
Ayres, Wright & Newhouse	Leadville, Col.
C. T. Barnum	Harvey's Lake, Pa.
A. Bauman	Wilkes-Barre, Pa.
George Behee	Wilkes-Barre, Pa.
Hon. Levi Bishop	Detroit, Mich.
Board of Second Geological Survey of Pa . .	Harrisburg, Pa.
R. A. Brock	Richmond, Va.
Thomas Brodrick, Mayor	Wilkes-Barre, Pa.
B. Brodhun	Wilkes-Barre, Pa.
Hon. William Bross	Chicago, Ill.
C. E. Butler	Wilkes-Barre, Pa.
William H. Butler	Wilkes-Barre, Pa.
Bureau of Education	Washington, D. C.
Rev. E. Warren Clark	Philadelphia.
Commissioner of Patents	Washington, D. C.
J. C. Coon	Wilkes-Barre, Pa.
Hon. Eckley B. Coxe	Drifton, Pa.
Isaac Craig	Allegheny, Pa.
M. B. Crary	Wilkes-Barre, Pa.
John H. Dager, Assistant Engineer	U. S. A.
John Dakin	Wilkes-Barre, Pa.
Hon. E. L. Dana	Wilkes-Barre, Pa.
J. V. Darling	Wilkes-Barre, Pa.
D. Davidsburg	Wilkes-Barre, Pa.
James P. Dennis	Wilkes-Barre, Pa.

Department of the Interior	Washington, D. C.
Thompson Derr	Wilkes-Barre, Pa.
Dr. William H. Egle	Harrisburg, Pa.
E. C. Frank	Wilkes-Barre, Pa.
Franklin Fire Insurance Company	Philadelphia.
Hon. Herman C. Fry	Wilkes-Barre, Pa.
Prof. A. E. Foote	Philadelphia.
Historical Society of Galveston	Galveston, Tex.
Prof. Gamgee	Washington, D. C.
Charles J. Goodhart	Wilkes-Barre, Pa.
G. W. Gustin	Pittston, Pa.
Dr. G. W. Guthrie	Wilkes-Barre, Pa.
Dr. Caleb Harlan	Wilmington, Del.
H. H. Harvey	Wilkes-Barre, Pa.
Rev. H. E. Hayden	Wilkes-Barre, Pa.
Chas. J. Hoadly, State Librarian of Conn	Hartford, Conn.
Rev. F. B. Hodge	Wilkes-Barre, Pa.
G. M. Hollenback Estate	Wilkes-Barre, Pa.
Dr. H. Hollister	Providence, Pa.
His Excellency Governor Hoyt	Harrisburg, Pa.
William V. Ingham	Wilkes-Barre, Pa.
E. V. Jackson	Wilkes-Barre, Pa.
J. E. James	Pittston, Pa.
Hon. Steuben Jenkins	Wyoming, Pa.
C. Ben Johnson	Wilkes-Barre, Pa.
Fred. C. Johnson	Wilkes-Barre, Pa.
John Keegan	Wilkes-Barre, Pa.
Geo. B. Kulp	Wilkes-Barre, Pa.
Woodward Leavenworth	Wilkes-Barre, Pa.
J. Frank Lee	Wilkes-Barre, Pa.
C. A. Leverige	Dunellen, N. J.
G. Mortimer Lewis	Wilkes-Barre, Pa.
Prof. H. C. Lewis	Philadelphia.
Long Island Historical Society	Brooklyn, N. Y.
A. H. McClintock	Wilkes-Barre, Pa.
A. T. McClintock	Wilkes-Barre, Pa.
Mrs. A. T. McClintock	Wilkes-Barre, Pa.

Mercantile Library Association	San Francisco, Cal.
His Excellency the Governor of Michigan . .	Lansing, Mich.
Hon. Charles A. Miner	Wilkes-Barre, Pa.
Minnesota Historical Society	St. Paul, Minn.
News-Dealer	Wilkes-Barre, Pa.
Nova Scotia Historical Society	Halifax, N. S.
Nova Scotia Provincial Library	Halifax, N. S.
Numismatic and Antiquarian Society	Philadelphia.
Old Colony Historical Society	Taunton, Mass.
Old Residents' Historical Society	Lowell, Mass.
Old Settlers' Historical Society	Racine, Wis.
P. M. Osterhout	Tunkhannock, Pa.
Isaac S. Osterhout	Wilkes-Barre, Pa.
Rev. N. G. Parke	Pittston, Pa.
Pennsylvania Historical Society	Philadelphia.
Dr. Henry Phillips, Jr	Philadelphia.
Hon. Lewis Pugh	Scranton, Pa.
Bernard Quaritch	London, England.
Quebec Literary and Historical Society . . .	Quebec, Canada.
John W. Raeder	Wilkes-Barre, Pa.
Record Commissioners of Boston	Boston, Mass.
Theodore Reinefeld	Wilkes-Barre, Pa.
Benjamin Reynolds	Wilkes-Barre, Pa.
Col. G. Murray Reynolds	Wilkes-Barre, Pa.
P. Butler Reynolds	Kingston, Pa.
Sheldon Reynolds	Wilkes-Barre, Pa.
Col. R. Bruce Ricketts	Wilkes-Barre, Pa.
Historical and Forestry Soc'y of Rockland Co.	Nyack, N. Y.
Hervey S. Rutter	Wilkes-Barre, Pa.
William P. Ryman	Wilkes-Barre, Pa.
Hon. Joseph A. Scranton	Scranton, Pa.
Scranton Republican	Scranton, Pa.
Christian Scherer	Providence, Pa.
Hon. L. D. Shoemaker	Wilkes-Barre, Pa.
Hon. John B. Smith	Kingston, Pa.
Smithsonian Institution	Washington, D. C.
John Snaith	Scranton, Pa.
Col. S. H. Sturdevant	Wilkes-Barre, Pa.

Rev. W. H. Swift	Wilkes-Barre, Pa.
J. H. Swoyer	Wilkes-Barre, Pa.
Miss Mary W. Thomson	Port Sanilac, Mich.
Dr. George Throop	Scranton, Pa.
James Trethaway	Wilkes-Barre, Pa.
Treasury Department	Washington, D. C.
Union-Leader	Wilkes-Barre, Pa.
Virginia Historical Society	Richmond, Va.
Calvin Wadhams	Wilkes-Barre, Pa.
War Department	Washington, D. C.
John Wasley	Wilkes-Barre, Pa.
Waterloo Historical Society	Waterloo, N. Y.
Weymouth Historical Society	Weymouth, Mass.
Horace Williams	Wilkes-Barre, Pa.
E. H. Witman	Wilkes-Barre, Pa.
J. A. Wood	Wilkes-Barre, Pa.
J. G. Wood	Wilkes-Barre, Pa.
George W. Woodward	Wilkes-Barre, Pa.
Miss Anna Wright	Wilkes-Barre, Pa.
Mrs. Emily L. Wright	Wilkes-Barre, Pa.
Harrison Wright	Wilkes-Barre, Pa.
Hon. H. B. Wright	Wilkes-Barre, Pa.
John Wroth, Jr	Wilkes-Barre, Pa.
Young Men's Christian Association	Wilkes-Barre, Pa.

COMMUNICATION OF JOHN H. DAGER.

WILKES-BARRE, *October 1, 1881.*

HARRISON WRIGHT, ESQ.,

Wilkes-Barre, Pa.

Sir: Appended please find a list of readings taken by me on the water gauge, painted on the south pier of the river bridge at this place. These readings refer to a zero supposed to be exactly five feet below the bottom of a white stripe which represents the figure five on the gauge, and this plane is 28.291 feet below the top of the flat stone foundation at the corner of Music Hall. All readings below the zero point have the minus sign prefixed. It will be noticed that the water has been $5\frac{3}{4}$ inches lower this season than last, but at that stage it lacked one inch of being as low as recorded by your Society in 1875, I think. Water in the Nanticoke pool is about 8 inches lower than last year. This is a fluctuating scale, however, as readily acted upon by excessive discharge as by meagre supply from the tributaries. Positive information (from the mills) has been received that the larger streams above debouching into this branch are much smaller in discharge than for several years.

Very respectfully,

JOHN H. DAGER,
U. S. Ass't Eng'r.

GAUGE READINGS AT WILKES-BARRE BRIDGE FOR 1880.

July.	Aug.		Sept.		Oct.		Nov.		In.	Remarks.
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.		
1	1	8	1	9 1/4	1	1	..	..
2	2	9 1/4	2	1 1/4	..	..	..	..
3	3	8 1/4	3	..	..	..	..	..
4	4	7 3/4	4	2 1/2	..	..	..	..
5	5	0 3/4	5	..	..	..	..	..
6	6	1	6	9 1/2	..	..	..	..
7	7	2 1/4	7	..	..	..	..	..
8	8	3	8	..	..	..	..	..
9	9	..	9	11 1/4	..	..	..	..
10	10	..	10	11 1/4	..	..	..	..
11	11	6 1/2	11	7 1/4	..	..	..	..
12	12	7	12	8 1/4	..	..	..	..
13	13	8 1/4	13	9 1/2	..	..	..	..
14	14	9	14	10	..	..	..	..
15	15	..	15	11	..	..	..	..
16	16	10 1/2	16	6 1/2	..	..	..	..
17	17	11 1/8	17	8 1/4	..	..	..	..
18	18	11 3/8	18	8 3/4	..	..	..	..
19	19	11 1/2	19	10 1/4	..	..	..	..
20	20	11 1/2	20	9 3/4	..	..	..	..
21	21	10 3/4	21	10	..	..	..	..
22	22	..	22	10 1/2	..	..	..	..
23	23	11 1/2	23	11 1/2	..	..	..	..
24	24	11 1/2	24	11 1/2	..	..	..	..
25	25	1	25	1	..	..	..	..
26	26	1	26	1	..	..	..	..
27	27	..	27	..	..	..	..	..
28	28	7 3/4	28	11 1/2	..	..	..	..
29	29	8 1/2	29	9	..	..	..	..
30	30	8 3/4	30	11 5/8	..	..	..	..
31	31	..	31	..	..	..	..	..

* These figures are calculated from observations taken upon the dates given at points either above or below the bridge.

GAUGE READINGS AT WILKES-BARRE BRIDGE FOR 1881.

May.	Ft.	In.	June.	Ft.	In.	July.	Ft.	In.	Aug.	Ft.	In.	Sept.	Ft.	In.	Oct.	Ft.	In.	Nov.	Ft.	In.
1	...	...	1	1	5	1	0*	10*	1	—0	1 1/4	1	—0	11 1/4	1	—1	4 1/4	1	0	3 1/4
2	...	...	2	1 1/8	3*	2	0*	3*	2	—0	4	2	—0	9 1/4	2	—1	4 1/4	2	0	2 3/4
3	...	...	3	1	3*	3	0*	7*	3	—0	6 1/2	3	—0	8 1/2	3	—1	4 1/4	3	—0	2 3/4
4	...	...	4	1	2	4	...	...	4	—0	6	4	—0	9	4	—1	1 1/8	4	0	0 1/4
5	2	0	5	...	...	5	...	...	5	—0	0 1/2	5	—0	10 3/4	5	—1	1	5	0	0
6	...	...	6	1	1	6	0	0	6	—0	1	6	—0	11 1/2	6	—1	2	6	0	0 3/4
7	...	...	7	1	0	7	—0	2	7	—0	4 3/4	7	—0	11	7	—1	3 1/4	7	—0	0 1/2
8	...	...	8	1	0	8	—0	3 1/4	8	0	4	8	—0	11	8	—1	2 1/2	8	...	...
9	...	...	9	1	9 1/4	9	—0	3 1/4	9	—0	0 1/4	9	—0	10 1/2	9	—1	1	9	...	...
10	1	9	10	5	7 1/4	10	—0	4 1/2	10	—0	3 1/4	10	—1	1	10	—1	0	10	...	...
11	...	...	11	9	6	11	0	4 1/2	11	—0	3 1/4	11	—1	2	11	—1	0	11	0	4 1/4
12	...	...	12	7	2	12	0	3 1/4	12	—0	0 1/4	12	—1	1 1/4	12	—0	11 3/4	12	0	7 1/2
13	...	...	13	5	0	13	0	3	13	—0*	5 3/4	13	—1	1 3/4	13	—0	10 1/4	13	0	9
14	...	...	14	3	4 3/4	14	0	1 1/4	14	...	...	14	—1	1 1/4	14	—0	9 1/4	14	0	7 1/4
15	...	...	15	2	3	15	0	2 1/4	15	—0	5 3/4	15	—1	2 3/4	15	—0	9 1/4	15	0	6 1/2
16	1	8	16	1	9	16	0	1 1/4	16	—0	6 1/2	16	—1	5 1/2	16	—0	9 1/2	16	0	6 1/4
17	2	3	17	2	0	17	...	...	17	—0	7 1/4	17	—1	2 1/2	17	—0	9	17	0	8 1/2
18	3	0	18	2	0	18	—0	3	18	—0	7	18	—1	2	18	—0	9	18	0	8 1/2
19	3	0	19	2	0	19	—0	4 1/4	19	—0	6 1/4	19	—1	2 3/4	19	—0	9	19	0	9 1/2
20	3	6 3/4	20	1	9 3/4	20	—0	6	20	—0	6 1/4	20	—1	4 1/4	20	—0	6 1/4	20	2	6
21	2	10 3/4	21	1	8	21	—0	6	21	—0	7 1/4	21	—1	4 1/2	21	—0	6 1/4	21	6	0
22	3	9 3/4	22	1	5	22	—0	6 1/2	22	—0	7 1/2	22	—1	5	22	—0	6 1/4	22	5	0
23	3	8 1/4	23	1	2	23	—0*	8 1/2	23	—0	8 1/4	23	—1	6 1/4	23	—0	1 1/2	23	...	...
24	3	2 3/4	24	0	8	24	—0*	8 1/4	24	—0	9	24	—1	5 1/2	24	0	1 1/4	24	...	...
25	2	7 3/4	25	0	5	25	—0	8 3/4	25	—0	10 3/4	25	—1	5 1/2	25	0	0	25	...	...
26	2	3	26	0	3	26	—0	9	26	...	...	26	—1	5 1/2	26	—0	2	26	...	...
27	2	1	27	0	2	27	—0	9 1/2	27	...	...	27	—1	5 1/4	27	—0	4	27	...	...
28	1	8	28	0	7	28	—0	9 1/2	28	...	...	28	—1	5 3/4	28	—0	5	28	...	...
29	1	10	29	1	1	29	—0	9 1/2	29	...	...	29	—1	4 3/4	29	—0	6	29	...	...
30	1	7 1/4	30	0	9	30	—0	9	30	...	...	30	—1	5	30	—0	5 1/2	30	...	...
31	1	5 1/4	31	0	9	31	—0	9 1/4	31	...	...	31	—1	5	31	—0	4 1/2	31	...	...

* These figures are calculated from observations taken upon the dates given at points either above or below the bridge.
 Note.—October 4th, 1881, water at Harrisburg within 1 in. of being as low as in 1853.

METEOROLOGICAL OBSERVATIONS FOR MAY, 1881. BY E. L. DANA.

THERMOMETER.										BAROMETER.							
	7 A. M.	Clds.	8 A. M.	Clds.	12 M.	Clds.	6 P. M.	Clds.		7 A. M.	Clds.	8 A. M.	Clds.	12 M.	Clds.	6 P. M.	Clds.
May 1	40	..	44	..	64	..	66	..	..	29.78	(o)	..	..	29.60	(1)	29.52	(5)
May 2	57	..	58	..	67	..	60	..	..	29.37	(8)	..	..	..	..	29.45	..
May 3	46	..	49	..	59	(5)	60	..	..	29.63	..	..	..	..	..	..	..
May 4	42	..	47	..	64	(o)	66	..	(3)	29.76	..	..	..	29.70	..	29.60	..
May 5	52	..	58	(5)	..	..	..	..	..	29.68	..	..	..	29.54	..	..	..
May 6	51	..	52	..	54	..	58	..	(10)	29.38	..	..	..	29.35	..	..	..
May 7	54	..	58	(10)	72	(1)	70	..	..	29.45	..	..	..	29.40	..	29.37	(o)
May 8	58	..	62	(o)	82	..	77	..	(1)	29.46	..	..	..	29.40	..	29.38	..
May 9	66	..	72	..	..	..	..	..	..	29.48	..	..	..	29.40	..	..	..
May 10	71	..	75	..	90	..	88	..	..	29.45	Shs.	..	..	..	..	..	..
May 11	70	..	77	..	87	..	86	..	..	29.40	..	..	..	..	..	..	..
May 12	71	..	72	..	88	(8)	..	..	..	29.45	..	..	..	29.40	..	29.37	..
May 13	76	..	81	(o)	83	..	80	(o)	(o)	29.38	..	..	..	29.34	..	29.20	..
May 14	62	(o)	70	(9)	77	(8)	76	(2)	..	..	..	..	..	29.00	..	28.96	(5)
May 15	..	..	73	(9)	82	..	78	..	Rain.	29.03	..	..	..	..	..	..	..
May 16	63	..	63	..	58	(10)	62	..	..	29.05	..	..	..	..	..	..	..
May 17	55	..	56	..	59	(8)	55	..	..	..	..	..	..	..	..	..	..
May 18	53	..	55	..	57	(9)	60	..	..	..	..	..	..	..	..	..	..
May 19	57	..	57	(8)	66	(8)	62	..	..	..	..	..	..	..	..	..	..
May 20	56	..	56	..	66	(9)	64	..	..	29.25	(9)	..	..	..	..	..	..
May 21	55	..	..	..	67	(10)	62	..	..	29.37	..	..	..	29.36	..	29.32	(10) R.
May 22	65	..	65	(7)	72	(1)	69	..	(3)	29.45	..	..	..	29.45	..	29.45	..
May 23	61	(5)	64	..	72	..	75	..	..	29.54	..	..	..	29.54	..	..	..
May 24	63	(1)	68	..	81	(2)	..	..	..	29.60	..	..	..	29.57	..	..	..
May 25	64	..	68	..	86	..	78	..	..	..	..	..	..	..	..	..	..
May 26	65	..	69	..	84	..	90	..	..	..	..	..	..	..	..	..	..
May 27	66	..	75	..	89	..	91	..	..	..	..	..	..	..	..	..	..
May 28	..	..	70	..	82	..	82	..	..	..	..	..	..	..	..	..	..
May 29	65	..	69	(1)	..	..	..	..	..	29.28	..	..	..	..	..	29.20	..
May 30	77	..	83	..	90	(5)	73	(10) R.	(10) R.	29.24	..	..	..	29.23	..	29.20	..
May 31	69	..	70	..	80	(8)	89	(8)	(8)	29.28	..	..	..	29.27	..	29.20	..

WILKES-BARRE, the place of observation, is in $1^{\circ} 10' 4''$ East Longitude; $41^{\circ} 14' 40.4''$ North Latitude, and is 550 feet above tide. The figures in brackets (1) to (10) denote the cloudiness. (o) is fair; (10) sky covered with clouds.

METEOROLOGICAL OBSERVATIONS FOR JUNE, 1881. By E. L. DANA.

METEOROLOGICAL OBSERVATIONS.

33

THERMOMETER.										BAROMETER.				REMARKS.	
7 A. M.	Cloudiness.	8 A. M.	Cloudiness.	21 M.	Cloudiness.	6 P. M.	Cloudiness.	7 A. M.	Cloudiness.	8 A. M.	Cloudiness.	12 M.	Cloudiness.		6 P. M.	Cloudiness.
June 1	69	..	70	..	82	..	65	..	29.17	0	..	29.10	8	..	1st. Rain fall .27 in. in the evening.
June 2	62	..	64	..	69	..	69	..	29.13	10	..	..	..	..	3d. Rain fall .43 in.
June 3	62	..	62	..	58	..	58	..	29.08	..	29.07	..	..	..	4th. Rain fall .05 in.
June 4	57	..	62	9	68	..	72	..	..	..	29.08	8	..	29.10	5th. Rain fall .18 in.
June 5	54	..	62	..	74	5	61	10	29.20	..	29.15	..	..	29.10	6th. Rain fall .24 in.
June 6	55	..	57	..	65	..	71	..	29.30	..	29.30	..	..	29.37	8th. Rain fall .15 in.
June 7	52	..	54	..	59	10	58	..	29.45	..	..	..	..	29.30	9th. Rain fall .26 in. up to 7 A. M.
June 8	60	..	62	..	68	..	70	..	29.17	..	..	..	..	29.27	10th. Rain fall 1.15 in. last night.
June 9	63	..	64	..	62	R.	59	R.	29.25	..	..	..	..	29.27	11th. Rain fall .23 in. last night.
June 10	55	8	56	..	59	..	58	..	29.30	..	29.33	..	..	29.40	12th. Sunday, bright and clear.
June 11	63	1	64	..	75	1	74	0	29.36	..	..	..	..	29.40	13th. Slight sprinkle (not measured).
June 12	63	..	64	..	82	1	80	1	29.50	..	29.45	..	..	29.42	14th. Rain fall from 9 last night to 9 A. M. to-day
June 13	64	5 c.s	67	..	79	3	78	..	29.45	..	..	..	..	..	.48 in.
June 14	67	5	63	8	78	3	75	3	29.23	..	29.38	..	..	..	26th. Sunday, heavy thunder storm, 10 to 11 A. M.
June 15	70	0	72	..	76	..	74	0	29.35	29.35	..	29.45	..	29.49	Rain fall .41 in.
June 16	62	..	62	1 c.s	70	3	68	8	29.52	..	29.45	29.10	29.07	..	27th. Rain fall last night .13 in.
June 17	58	..	63	..	64	9	74	4	29.10	..	29.15	..	..	..	The average temperature at 8 o'clock A. M. during June, 1881, was 65.1°.
June 18	71	..	74	0	79	8	83	8	29.18	..	29.15	29.08	29.14	..	The average temperature at same hour of June, 1880, was 79.5°.
June 19	67	8	74	..	83	8	81	2	29.20	..	..	29.15	29.10	..	The average temperature in June, 1881, was, therefore, lower by 5.4° than during the month of June, 1880.
June 20	65	..	68	5 c.	73	8	72	..	29.24	..	29.17	..	..	..	The rain fall during the month of June, 1881, was 4.005 in.
June 21	64	..	65	1	68	2	66	..	29.15	..	..	29.10	..	..	There was rain on thirteen days or nights during the month, having fallen 6 nights and on 7 days.
June 22	57	0	63	7	73	..	69	2	29.30	..	..	29.25	..	..
June 23	56	10	57	9	68	..	66	3	29.37	..	29.35	29.40	..	..
June 24	56	0	58	0	68	..	68	2	29.50	..	..	29.45	..	..
June 25	57	0	63	5	76	8	74	7	29.49	..	29.42	29.40	..	..
June 26	66	..	68	9	64	..	75	1	29.40	..	..	29.39	..	..
June 27	66	8	63	..	71	..	70	8	29.40	..	..	29.10	..	..
June 28	76	..	78	3	81	..	82	2	..	29.04	29.02	28.86	..	..
June 29	74	..	78	..	83	2	81	1	..	28.95	28.93	29.03	..	..
June 30	72	..	74	1	78	..	75	2	29.18	..	29.17	29.19	..	29.19	

METEOROLOGICAL OBSERVATIONS FOR JULY, 1881. BY E. L. DANA.

THERMOMETER.						BAROMETER.				REMARKS.
7 A. M.	Cloudiness.	8 A. M.	Cloudiness.	12 M.	Cloudiness.	2 P. M.	Cloudiness.	6 P. M.		
July 1	66	..	66	..	76	..	78	..	29.37	8th. Rain fall afternoon and evening18 in.
July 2	69	..	67	0	80	..	82	0	29.45	11th. Rain fall 8.40 to 10.20 A. M.68 in.
July 3	70	..	74	0	78	..	84	..	29.35	13th. Rain fall 2 to 2.30 P. M.42 in.
July 4	74	..	77	0	80	..	82	1	29.29	26th. Rain fall last night .37; at 5 P. M. .05 . .42 in.
July 5	75	..	80	8	86	..	88	5	29.30	29th. Rain 10 to 12 A. M. 1.75; P. M. .27 . .2.02 in.
July 6	82	..	80	..	86	..	..	..	29.07	31st. Rain fall in A. M. .55; 6 P. M. .31 . . .86 in.
July 7	62	..	67	..	83	..	..	..	29.30	
July 8	72	..	71	10	72	..	73	10	29.36	
July 9	70	..	74	0	81	..	83	..	29.44	
July 10	74	..	79	..	88	..	91	..	29.35	
July 11	81	..	84	10	79	..	81	..	29.12	
July 12	71	..	75	9	81	3	..	..	29.30	
July 13	84	..	85	2	80	..	76	10	29.27	
July 14	78	..	70	0	83	1	83	4	29.38	
July 15	67	..	71	2	81	..	82	5	29.45	The average temperature at 8 A. M. during July, 1881, was 70½°.
July 16	71	..	73	0	83	1	81	..	29.28	
July 17	71	..	74	0	78	4	80	1	29.08	
July 18	66	..	69	0	70	..	..	..	29.00	
July 19	66	..	70	6	80	..	81	..	29.09	
July 20	69	..	72	6	80	..	83	..	29.22	
July 21	73	..	78	2	85	1	84	..	29.15	
July 22	66	..	63	..	76	..	77	..	29.05	
July 23	65	..	67	..	78	..	79	..	29.04	
July 24	64	..	70	..	82	1	85	2	29.10	
July 25	68	..	74	1	85	..	89	..	29.30	
July 26	70	..	71	5	76	..	80	1	29.20	
July 27	64	..	68	5	74	..	73	8	29.26	
July 28	67	..	71	3	74	..	76	..	29.20	
July 29	66	..	70	..	63	..	71	..	29.40	
July 30	64	..	65	0	76	5	77	..	29.47	
July 31	68	..	69	10	76	..	75	8	29.55	
									29.48	

METEOROLOGICAL OBSERVATIONS FOR SEPTEMBER, 1881. BY E. L. DANA.

THERMOMETER.										BAROMETER.				REMARKS.	
7 A. M.	Cloudiness.	8 A. M.	Cloudiness.	12 M.	Cloudiness.	2 P. M.	Cloudiness.	6 P. M.	Cloudiness.	7 A. M.	8 A. M.	12 M.	2 P. M.		6 P. M.
Sept. 1	70		75	0	88	0	88	0	86		29.30	29.20	29.30	29.30	1st. Dry!
Sept. 2	69	70	70	0	75	9	78		77		29.32	29.30	29.30	29.28	2d. Rain fall began at 10 last night, and 10 to 12 to-day 1.85 in.
Sept. 3	63		70		70		70		79		29.40	29.40	29.40	29.30	5th. Rain fall from 7 to 8 A. M.29 in.
Sept. 4	69	8	71		78		78		74		29.48	29.40	29.45		9th. Dry and smoky.
Sept. 5	73		72	10	85		88	0	88		29.46	29.46	29.43		14th. Dry.
Sept. 6	72		76	2	83		96	0	87		29.50	29.46	29.43	29.26	11th. Rain fall to 8 A. M. 16 in., and 5 to 6 P. M. .55 in.; total71 in.
Sept. 7	71		75		92		94		86		29.47	29.43	29.46	29.38	18th. Fog in morning.
Sept. 8	69		72		82		85		80		29.45	29.42	29.46	29.38	20th. Fog in morning.
Sept. 9	71		75		78		85		78		29.39	29.36	29.36	29.30	23d. Rain fall 4 P. M.17 in.
Sept. 10	71	10	71		76		81	3	68		29.35	29.40	29.30	29.30	24th. Fog in morning.
Sept. 11	63	3	64		73		74		72		29.40	29.40	29.38	29.40	25th. Extremely dry.
Sept. 12	53	0	58		78		85		71		29.43	29.40	29.53	29.50	27th. Rain at 9.30 A. M. .03 in.; in afternoon 1 to 1.30. 1.1 in.; total14 in.
Sept. 13	54	58	72		72		78		72	8	29.58	29.55	29.53	29.50	28th. Rain fall 3 to 3.30 P. M.16 in.
Sept. 14	62	63	73		73		73		71		29.56	29.42	29.42	29.50	29th. Rain fall to A. M.03 in.
Sept. 15	66	10	70		70		70		69		29.67	29.62	29.50		Total rain fall during September . 3.35 in.
Sept. 16	67	7	68		78		85		73		29.63	29.50	29.32		
Sept. 17	66	57	76		77		76		74		29.38	29.33	29.32		
Sept. 18	57		74		74		79		75		29.40	29.40	29.37		
Sept. 19	63	64	70		76		76		75		29.42	29.46	29.36		
Sept. 20	55		56		76		76		74		29.50	29.46	29.40		
Sept. 21	74	0	76		76		76		74		29.40	29.45	29.30	29.34	The average temperature at 8 A. M. during September, 1880, was 63°.
Sept. 22	64		66		75		76		74		29.45	29.43	29.34	29.30	The average temperature at 8 A. M. during September, 1881, was 69°.
Sept. 23	66		70	0	80		83	9	68	1	29.42	29.45	29.38	29.35	The temperature for September, 1881, at 8 A. M., 9° higher than at that hour in 1880.
Sept. 24	62		65	0	82		85		79		29.40	29.44	29.31	29.40	The river and streams extremely low. Deficiency of water supply.
Sept. 25	71		73	0	87		89	0	80		29.42	29.45	29.34	29.30	
Sept. 26	70		75		88		90	0	80		29.44	29.48	29.38	29.35	
Sept. 27	62	9	72		84	9	78		72		29.32	29.31	29.31	29.40	
Sept. 28	73		78		83		85		76	2	29.50	29.50	29.54	29.50	
Sept. 29	68		70	9	70		76		76		29.60	29.60	29.54	29.50	
Sept. 30	72		74		84	1	82		80		29.60	29.60	29.54	29.50	

METEOROLOGICAL OBSERVATIONS FOR OCTOBER, 1881. BY E. L. DANA.

METEOROLOGICAL OBSERVATIONS.

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METEOROLOGICAL OBSERVATIONS FOR OCTOBER, 1881. By E. L. DANA.

THERMOMETER.										BAROMETER.				REMARKS.
	7 A. M.	Cloudiness.	8 A. M.	Cloudiness.	12 M.	Cloudiness.	2 P. M.	Cloudiness.	6 P. M.	Cloudiness.	8 A. M.	2 P. M.	6 P. M.	
Oct. 1	70	..	74	1	86	1	87	..	88	2	29.60	29.57	29.60	2d. At 1 P. M. rain fall of .05 in.
Oct. 2	66	..	68	8	74	2	69	..	68	..	29.72	29.68	29.65	3d. Rain fall last to 7 this morning .23 in.
Oct. 3	70	10	71	4	82	10	84	..	77	..	29.46	29.43	29.37	8th. Cir. Str. Clouds { Rain fall 7 A. M. .02 in.
Oct. 4	67	..	69	9	76	..	64	..	60	..	29.30	29.24	..	{ Rain fall 5 P. M. .03 in.
Oct. 5	44	1	47	1	45	0	50	0	46	0	29.60	29.63	29.63	{ Rain fall last night .09 in.
Oct. 6	35	0	44	..	57	0	62	0	54	..	29.65	29.72	..	{ Rain fall 11 to 1 P. M. .07 in.
Oct. 7	45	..	48	9	64	9	68	..	62	8	29.63	29.63	29.62	{ Rain fall 10 A. M. to 1 P. M. .31 in.
Oct. 8	58	..	62	..	80	1	82	..	70	9	29.55	29.45	29.38	{ Rain fall P. M. .01 in.
Oct. 9	63	..	63	9	61	..	60	10	59	6	29.43	29.38	29.38	{ Rain fall 7 A. M. .01 in.
Oct. 10	51	0	55	0	62	3	61	1	48	8	29.48	29.49	29.68	{ Rain fall 1 P. M. .08 in.
Oct. 11	33	0	36	0	53	0	57	0	49	0	29.60	29.80	29.78	19th. Cir. Str. Clouds.
Oct. 12	48	..	52	9	50	..	52	10	52	10	29.64	29.55	29.55	21st. Fog.
Oct. 13	55	9	56	..	63	9	67	..	66	..	29.50	29.44	29.39	22d. Fog.
Oct. 14	43	0	45	..	52	..	56	1	54	0	29.74	29.65	29.62	26th. New Moon.
Oct. 15	55	10	56	..	64	9	66	..	67	0	29.54	29.46	29.40	{ Rain fall last night .13 in.
Oct. 16	65	10	62	..	66	0	66	0	64	1	29.60	29.61	29.65	{ Rain fall 9 to 11 A. M. .08 in.
Oct. 17	55	..	60	6	70	..	73	1	70	1	29.63	29.43	29.40	{ Rain fall in night .08 in.
Oct. 18	68	10	69	..	71	10	71	..	63	..	29.28	29.26	..	Sprinkle of rain.
Oct. 19	46	..	50	..	54	..	53	7	50	3	29.60	29.56	29.55	{ Rain fall last night .46 in.
Oct. 20	43	1	46	..	60	3	63	1	57	2	29.50	29.46	29.45	{ Rain fall during day .05 in.
Oct. 21	38	..	40	0	59	0	62	0	54	0	29.64	29.60	29.60	{ Rain fall for the month .170 in.
Oct. 22	38	f.	38	0	64	0	68	0	57	0	29.64	29.52	29.52	
Oct. 23	37	..	40	0	68	0	70	3	60	3	29.50	29.37	29.39	
Oct. 24	54	..	56	10	66	10	66	..	60	2	29.20	29.14	29.04	Average temperature at 8 A. M. during October, 1880, was 47.4°.
Oct. 25	60	10	60	..	64	5	67	..	61	9	28.90	28.80	28.97	Average temperature at 8 A. M. during October, 1881, was 54°.
Oct. 26	45	7	46	..	59	0	52	0	44	0	29.22	29.30	29.30	The temperature at 8 A. M. during October, 1881, greater than at that hour in 1880 by 6.6°.
Oct. 27	26	0	34	0	58	..	52	0	52	0	29.52	29.43	29.40	
Oct. 28	35	9	38	..	58	8	62	..	58	1	29.53	29.48	29.50	The rain fall for September, 1881, was .335 in.
Oct. 29	59	10	60	..	64	7	66	10	64	..	29.45	29.39	29.34	The rain fall for October, 1881, was .170 in.
Oct. 30	57	..	59	4	74	5	74	10	66	4	29.35	29.33	29.30	Rain fall for Oct., 1881, less than that of Sept., 1881, by 1.65 in.
Oct. 31	67	10	68	10	63	10	62	..	62	8	29.17	29.24	29.20	

METEOROLOGICAL OBSERVATIONS FOR NOVEMBER, 1881. BY E. L. DANA.

THERMOMETER.										BAROMETER.			REMARKS.	
7 A. M.		8 A. M.		Cloudiness.		12 M.		Cloudiness.		2 P. M.		6 P. M.		
Cloudiness.	Therm.	Cloudiness.	Therm.	Cloudiness.	Therm.	Cloudiness.	Therm.	Cloudiness.	Therm.	Cloudiness.	Therm.	Cloudiness.		Therm.
Nov. 1	55	55	10	62	9	64	9	29.34	29.35	29.35	1st. Rain fall last night		16 in.	
Nov. 2	57	58	6	66	9	66	9	29.32	29.30	29.30	4th. Rain fall last night		30 in.	
Nov. 3	59	60	4	62	2	54	10	29.08	29.32	29.30	7th. Rain fall 10 A. M. to 5 P. M.		20 in.	
Nov. 4	38	41	4	46	2	45	34	28.98	29.05	29.05	8th. Rain fall last night, .10 in.; this morning, .06 in.		10 in.	
Nov. 5	34	44	0	44	2	58	50	29.38	29.15	29.15	9th. Rain fall last night, .08 in.; 2 P. M., .13 in.		21 in.	
Nov. 6	39	52	0	58	2 st.	59	48	29.57	29.60	29.65	11th. Rain fall		33 in.	
Nov. 7	39	42	8	46	10	45	46	29.75	29.68	29.67	12th. Rain fall		81 in.	
Nov. 8	54	54	10	59	10	63	10	29.58	29.55	29.54	23d. Rain fall, with snow		53 in.	
Nov. 9	68	69	0	73	10	62	59	29.58	29.43	29.50	Total rain fall.		2.70 in.	
Nov. 10	30	42	0	50	0	53	46	29.75	29.75	29.75				
Nov. 11	30	42	0	44	0	45	42	29.86	29.75	29.75				
Nov. 12	41	44	0	47	0	50	8	29.40	29.19	28.95	Rain fall of last month (October) only 1.7 in.			
Nov. 13	48	50	5	51	0	52	46	29.50	29.10	29.15				
Nov. 14	46	50	9	49	0	50	43	29.30	29.35	29.40				
Nov. 15	34	36	8	42	0	43	38	29.82	29.70	29.84				
Nov. 16	26	32	0	46	0	47	43	30.00	29.75	29.53	Average temperature at 8 A. M. during November, 1881		42½°	
Nov. 17	37	43	0	54	0	55	52	29.85	29.70	29.60	Average temperature at 8 A. M. during November, 1880		39°	
Nov. 18	52	52	0	53	0	54	44	29.30	29.25	29.29	November, 1881, warmer than November, 1880, by		12¼°	
Nov. 19	46	47	0	56	0	54	44	29.05	29.10	29.15				
Nov. 20	36	36	0	40	0	42	34	29.72	29.70	29.70				
Nov. 21	32	35	0	40	0	41	39	29.65	29.55	29.50				
Nov. 22	40	39	0	52	0	54	29	29.60	29.75	29.75				
Nov. 23	22	25	0	32	0	35	34	29.60	29.40	29.25				
Nov. 24	34	34	0	33	0	32	6	29.10	29.15	29.10				
Nov. 25	19	19	5	30	0	30	10	29.60	29.60	29.60				
Nov. 26	26	26	0	32	0	38	25	29.50	29.40	29.45				
Nov. 27	30	31	0	36	0	38	8	29.47	29.27	29.27				
Nov. 28	27	30	2	34	0	36	44	29.75	29.65	29.70				
Nov. 29	40	40	0	49	0	50	0	29.67	29.56	29.56				
Nov. 30	34	36	0	44	0	44	0	29.53	29.48	29.40				

METEOROLOGICAL OBSERVATIONS FOR JANUARY, 1882. BY E. L. DANA.

THERMOMETER.										BAROMETER.			REMARKS.
Cloudiness.	8 A. M.	Cloudiness.	12 M.	Cloudiness.	2 P. M.	Cloudiness.	6 P. M.	Cloudiness.		8 A. M.	2 P. M.	6 P. M.	
Jan. 1	26	8	27	..	30	..	31	4	24	29.18	29.17	29.17	7th. Rain fall last night
Jan. 2	12	13	13	7	10	..	18	1	14	29.35	29.30	29.38	8th. Rain fall up to 5 P. M.
Jan. 3	11	14	14	4	28	..	31	8	28	29.40	29.32	29.40	11th. Snow fall last night
Jan. 4	5	7	7	..	..	..	44	..	10	29.37	29.43	29.40	13th. Snow fall, melted
Jan. 5	7	10	10	6	..	..	20	6	27	29.90	29.85	29.85	14th. Snow squall.
Jan. 6	34	35	35	8	36	10	36	37	37	29.60	29.33	..	17th. Rain fall, 10 in.; snow fall, 34 in.; total
Jan. 7	36	37	37	8	44	..	42	9	37	29.43	29.45	29.50	21st. Snow.
Jan. 8	39	41	41	R.	42	R.	43	42	42	29.42	29.34	29.25	25th. Snow.
Jan. 9	41	42	42	2	46	..	48	0	37	29.25	29.30	29.48	26th. Snow and rain fall last night
Jan. 10	32	32	32	1	38	..	40	6	37	29.69	29.63	29.60	28th. Rain fall
Jan. 11	36	37	37	10	42	..	43	8	39	29.20	29.30	28.46	
Jan. 12	33	36	36	2	42	1 c. s.	42	6	34	29.70	29.78	29.77	
Jan. 13	37	34	34	10	40	9	43	8	38	29.42	29.10	28.92	
Jan. 14	38	36	36	..	38	3	34	4	32	29.00	29.17	29.37	
Jan. 15	19	0	20	..	35	1	35	1	40	29.35	29.28	29.29	
Jan. 16	38	..	38	8	44	9	42	10	40	29.10	29.15	29.20	31st. Very heavy snow during day and night. Noted in rain fall of February 1st.
Jan. 17	26	..	26	8	44	2	28	..	19	29.36	29.50	29.57	
Jan. 18	7	..	9	6	32	8	33	..	32	29.05	29.52	29.50	
Jan. 19	30	4	30	8	38	4	37	8	32	29.40	29.50	29.60	
Jan. 20	18	..	16	8	34	9	34	..	32	29.63	29.54	29.53	The rain and snow fall during the month was 3.25 in.
Jan. 21	32	34	34	10 R.	38	R.	39	10	37	29.46	29.18	29.12	The rain and snow fall during December, 1881, was 4.83 in.
Jan. 22	34	5	35	..	27	3	27	..	19	29	29.26	29.40	
Jan. 23	8	..	8	1	12	..	12	..	5	29.62	29.70	29.83	
Jan. 24	6	..	5	0	1	0	5	0	2	30.05	30.11	30.05	The average temperature during month at 8 A. M. was 56°.
Jan. 25	7	..	10	5	25	9	28	9	26	29.85	29.72	29.70	The average temperature during Jan., 1881, at 8 A. M. was 18.2°.
Jan. 26	33	..	36	10	43	9	42	9	39	29.53	29.26	29.20	
Jan. 27	43	..	44	4	45	0	40	0	38	29.48	29.60	..	
Jan. 28	35	..	36	2	37	..	41	2	37	29.47	29.25	29.25	
Jan. 29	25	..	25	2	24	..	24	0	20	29.28	29.39	29.50	
Jan. 30	15	..	18	..	26	0	30	0	30	29.50	28.46	..	
Jan. 31	21	..	22	9	27	Sn.	26	3	27	29.18	28.90	28.80	

INCIDENTS IN THE LIFE

—OF—

CAPT. SAMUEL H. WALKER, TEXAN RANGER,

KILLED AT THE BATTLE OF HUAMANTLA, MEXICO,

WHOSE SWORD IS IN THE POSSESSION OF THE WYOMING HISTORICAL
AND GEOLOGICAL SOCIETY.

PREPARED BY EDMUND L. DANA,

LATE CAPTAIN FIRST PENNSYLVANIA VOLUNTEERS MEXICAN WAR.

The sword has been, and will probably continue to be, a potent factor in human history. It was appropriate, therefore, to assign it a place amongst the mementos of the past in the collection of a historical society. Of the swords now grouped in peaceful proximity on our walls, some are ancient, others modern; some associated with Revolutionary memories, others with Waterloo and the Napoleonic wars; and still others with our war of 1812, the war with Mexico, and the more recent conflict with the South. Few, if any of them, are remarkable for beauty of design, for ornamentation, or superior excellence of material; and are only valuable for the associations and histories connected with them. Upon an old Ferrara blade, in the Erbach collection, is inscribed the device, "My value varies with the hand that holds me." The hands that held many of those in our collection are buried in forgotten graves in the fields where they fell. The story of others may be gathered from the official reports, and the recollection of surviving participants in those scenes of daring and death where they were employed. One of these was so bravely worn, and so effectively

used, as to deserve especial mention. The scabbard is deeply indented, the edge of the blade is hacked, and on the inner side of the well-worn belt appears, amidst blood stains, the name, written by his own hand, of SAMUEL H. WALKER.

The heroic death of this intrepid soldier, and the origin of these blood stains, are briefly given by Gen. Lane in his report of the engagement with the enemy, under Gen. Santa Anna, at Huamantla, Mexico, October 9th, 1847. Learning through his spies that the enemy were in that city, Gen. Lane moved forward, and arriving near it, at about one o'clock P. M., Capt. Walker commanding the advance guard, comprising his own and four companies of mounted men, was ordered to move ahead of the column, but within supporting distance, to the entrance of the city, and if the enemy were in force to await the arrival of the infantry before entering. When within about three miles, parties of horsemen were seen making their way through the fields towards the city, and Capt. Walker commanded a gallop. It was impossible, on account of the thick maguey bushes, to distinguish his further movements; but after a short time firing was heard from the direction he had taken. The firing soon became continuous and heavy, and the column was rapidly pressed forward. Upon arriving at the entrance to the city, Capt. Walker discovering a body of the enemy, about five hundred in number, in the plaza, ordered a charge. A hand to hand conflict ensued, but so resolute was the assault that the enemy were driven from their guns and put to flight. Capt. Walker's force had been engaged some three-quarters of an hour, says Gen. Lane, before the infantry arrived to his support. He succeeded in capturing two pieces of artillery from the enemy, but was unable to use them for want of priming tubes, although every effort was made. Lieut. Clayborne, of Walker's company, told the writer of this article immediately after the battle, and whilst

standing beside one of the captured guns, that in his effort to discharge it he had fired his revolver into the priming or vent hole. "This victory is saddened," says Gen. Lane, "by the loss of one the most chivalric, noble hearted men that graced the profession of arms—Capt. Samuel H. Walker, of the mounted riflemen. Foremost in the advance, he had routed the enemy, when he fell mortally wounded. In his death, the service has met with a loss which cannot easily be repaired."

He was with his command on the central plaza in the city, all organized resistance by the enemy had ceased, when he was hit by a random shot fired from a neighboring tower, and this sword, conspicuous on many fields, and that flashed in battle for the last time, in the sunlight of that October afternoon, fell from his relaxed grasp, and was given by his sorrowing comrades to Maj. Bowman, of the First Pennsylvania Regiment, and by him carefully preserved until his return to Wilkes-Barre at the end of the war, when it was presented to this Society.

In Gardner's Military Dictionary occurs the following brief summary of the leading incidents in Capt. Walker's eventful life: "He was born in Prince George county, Maryland, in 1815; Captain of Texas Rangers on the Rio Grande, and distinguished in May, 1846, communicating with Fort Brown; served with the Fifth Infantry, and distinguished in the battle of Palo Alto; Lieut. Colonel of Hays' Regiment, Texas Cavalry, June, 1846; distinguished in the battle of Monterey, September 21, 1846; killed in a charge at Huamantla, Mexico, October 9, 1847."

A volume would not suffice to contain the details of this meagre outline; each incident of which would furnish the theme of a thrilling chapter of history and of daring. But the only records to which I have had access are the official reports, and an occasional letter with the reminiscences of a comrade. Newspaper correspondents rarely, if ever, accom-

panied his expeditions, and he had more facility with the sword than with the pen.

The following incidents in his early life and career are condensed from a statement furnished, on request, by Wm. S. Oury, Esq., now of Tucson, Arizona, a former member of Capt. Gillespie's company, in Col. Hays' Regiment of Texas Rangers, a trusted friend of Capt. Walker's, and associated with him, as will appear, in many perilous adventures.

Walker served an apprenticeship at the carpenter's trade, but finding this employment distasteful he went to Florida, then or recently the theatre of Indian hostilities, and thence in 1841 to the Texas frontier. In 1842 great excitement was caused by the Mexican foray into Texas under Gen. Wohl, and the capture of a number of prominent citizens and officials. Gov. Houston ordered out eight hundred volunteers under Gen. Summerville to oppose Wohl, and to punish his aggressions. Walker joined this expedition. After a tedious march the command reached the Rio Grande, and occupied the town of Laredo, but its further advance became impracticable through want of transportation and of supplies, and the order was given for its return to San Antonio. About two hundred and seventy of the command, including Walker, unwilling to return without striking a blow, resolved to move on, and attack the town of Mier. On the day before their arrival at that place, Walker, who was, as usual, in the advance, was suddenly attacked by a large party of Mexicans, his two companions killed, and he was severely wounded and taken prisoner. He was thus prevented from participating in the attack on Mier, which was made on the following day, Christmas of 1842, and was sent under guard to a hospital at Matamoras. On the route the escort met Gen. Ampudia and his army of three thousand men. The General, having ordered Walker into his presence, pompously asked him if "his companions, the Texan dogs, would dare to fight him?" "Yes," replied

Walker, "and they will whip you, too." From Matamoras he was sent with others wounded and captured at Mier to Tampico, and from thence to the City of Mexico, where they were confined in the old Convent of Santiago. As soon as the condition of their wounds permitted, they were dressed in prison garb, removed to Molino del Rey, just west of the city, and compelled to work on the streets of Tacubya, and in the construction of a way up the hill of Chapultepec. One day, whilst thus engaged, one of the guards, in a spirit of wanton levity, struck Walker with a whip over the back. Instantly he dropped the burden he was carrying up the hill, and sprang upon the offender with the fury and strength of a tiger. The other guards rushed, with clubbed muskets and other weapons, to the relief of their comrade, and only succeeded in his rescue after a contest, in which Walker was severely wounded. He was sent to the hospital nearly lifeless, and remained there for two months; and when able to be returned to work, he, with a companion of the name of Dalrymple, the next morning, on their way with others to the scene of their labors, stealthily stole away from the gang into the maguey bushes, which grew abundantly there, and after the party had passed out of sight, made their way into the City of Mexico, where some English and American laborers in a large coach factory secreted them until the excitement over their escape had subsided. They were then supplied with proper clothing in place of their prison dress, and sent on to Real del Monte, where the extensive silver mines are worked by an English company, and from thence made their way as Englishmen to Tampico, on the coast. At a small village on the route they were arrested, and their passports demanded. Dalrymple promptly drew from his pocket an extract clipped from an English paper, and presented it for inspection. The Mexican official, after looking at it, remarked that it was English, and he could not read a word of it. "Of

course it is in English," replied Dalrymple; "the English only carry passports in their own language." The explanation was satisfactory, the paper approved, and they were suffered to go their way. Finding a vessel at Tampico about to sail for New Orleans, Walker visited the Captain, and learning that a carpenter and cook were needed, he agreed to work his passage there as ship-carpenter, and Dalrymple undertook to act as cook. After the vessel put out to sea, the Captain discovered that Dalrymple had no knowledge of cooking, and berated him for his false representations. This led to a full explanation, and though the Captain and crew suffered inconvenience for want of a cook, a passage to New Orleans was cordially afforded them. On reaching there, Walker at once took passage for Galveston, and in the latter part of 1843 reached San Antonio, and with other old comrades joined Hays' Ranging Regiment.

It was a current belief throughout the army under Gen. Scott, supposed to have been founded on facts obtained from Capt. Walker himself, that he was confined at the Castle of Perote during a part of the time of his captivity; that whilst there he buried a dime in the sand at a point on the glacis, remarking to a prisoner, "I will return here some day ere long, and under other circumstances than the present, and recover this piece;" and that on his arrival at the Castle with his command in 1847, he went to the spot, and, digging down, found the dime, and made good his promise. Mr. Oury, however, thinks he was not at Perote, and that the dime incident is a myth. If the Captain made or authorized the statement, it is correct, for he was the very embodiment of truth; but whether he did or not, I have no means of determining.

A lot of Colt's six-shooting revolvers, then a new and untried weapon, with an extra cylinder for each, had been purchased for use as a boarding weapon for the Texan navy. As no occasion had occurred for their employment in

that service, they were issued on trial to the scouts and rangers sent out to protect the frontier against marauding bands of Indians. Early in the year 1844 a scouting party of fifteen men, including Walker and my informant, Mr. Oury, armed with these pistols, in addition to their rifles, was organized for this purpose under the command of Jack Hays. After a hunt of three or four weeks without striking an Indian trail, the party was returning, and had reached Sister's Creek, a small tributary of the River Guadalupe, about two miles above its junction with that river, and some sixty miles from San Antonio, when the men discovered a bee tree on the bank of the creek. A halt was ordered; two men, Coleman and Acklin, climbed the tree to make an opening in it with their hatchets to get at the honey. Their elevated position gave them a view of the prairie and slightly rolling hills, and Coleman, casting a glance back over the route they had traveled, discovered, at the distance of half a mile, a party of about twenty-five Comanches, apparently watching their movements. The two men descended; all were ordered to look well to their saddle fastenings, to tightening girths, and to see that their pistols and rifles were loaded, capped, and in proper condition for service. Our party (we adopt, in substance, the language of Mr. Oury) then advanced slowly up the ascent to within three hundred yards of the Comanches, who, at a halt, were seated cross-legged upon their horses, as though they were mere unconcerned spectators of our movements. Capt. Hays gave the order to charge, and our party having rapidly advanced to the top of the rise, and within sixty yards of the enemy, discovered another party of about fifty Indians coming up from the other side of the hill. As their numbers were now too great for us to encounter them on the open plain, we were halted, and ordered to seek, with all speed, to gain the cover of a body of timber, about a quarter of a mile away. Thither our party fled, with the

seventy-five Indians in hot pursuit, and on approaching the cover we were received with a discharge of arms by another party of about twenty-five Indians, secreted in the woods. As our only safety was in dispersing this force, with pistols in hand, we rushed upon them, and after a short encounter, face to face, they broke and fled, astonished at our rapid, continuous, and effective fire. The three parties having now united in one body, charged down upon us, but our position, the superiority of our weapons, and their skillful use, enabled us to repel them. Several like attacks were made and repulsed in quick succession, when the Indians withdrew slowly up the rise, bearing with them a number of their dead, to a position just beyond rifle range, and there halted, apparently for consultation. After waiting nearly an hour, it was apparent that they would not renew the attack in our strong position, and we in turn charged upon them. Instantly three of our men were so severely wounded as to require the aid of a man each to keep them upon their horses, and we were ordered again to seek our former shelter, with the wounded in front, and the remaining nine effective men covering the rear. Walker, who was, of course, at the most exposed place amongst the latter, shot one Indian, when another, rushing up unobserved, run a lance through his body. John Carolan, one of our men, instantly sent a ball into the Indian's head. I sprang forward, caught hold of Walker, who was reeling upon his horse, pulled out the lance, and assisted him back into the woods. Capt. Gillespie, also severely wounded, fell from his horse at the edge of the timber, when the Comanche Chief darted forward to dispatch him with a lance; but Gillespie, who had clung to his pistol, retaining strength enough to use it, fired at the Chief, who fell forward over his horse's head beside his intended victim. The Captain was dragged back into the timber, and the Indians concentrated all their strength in the effort to recover the dead

body of their Chief. In the desperate hand to hand conflict which ensued they evinced such courage and persistence that, with their superior numbers, there was danger of the utter destruction of our small band. We were retired a short distance back into the woods, when the Indians placed the body of their Chief on a horse, and, with loud lamentations, moved rapidly off. Hays instantly mounted his horse, and called on all who were not disabled to follow him. Seven of us joined him in pursuing the enemy, who, in their effort to secure their wounded and dead, although suffering severe loss, made little further resistance. Night closed the pursuit, the wounded were removed to San Antonio, and the reputation of the six-shooter was established.

In a conversation with Col. Hays and Gen. Lane, at the Café de Lafayette, in the City of Mexico, in the Spring of 1848, the Colonel spoke of this, or a similar encounter he and Walker, with a force of twenty-five men, had with the Comanches, as being the subject of the engraving of an Indian fight, which still appears on the cylinders of this weapon.

Walker's recovery was for a time doubtful, but owing to his excellent habits and general good health, to his iron will, and also to the careful nursing received from his friend and comrade, Mr. Oury, he was able, after a few months' confinement, to rejoin his company. A number of skirmishes with small parties of Indians occurred soon after he rejoined his command, and in each he was so invariably wounded, that he came to be known and designated as "Unlucky Walker." In one running fight, in the Winter of 1844, near Corpus Christi, he singled out and engaged a renegade Cherokee, a fugitive from justice, who had taken refuge amongst the Comanches, and displayed during the action extraordinary skill and daring. Several shots at close quarters were interchanged, the Indian's horse was killed, Walker's spirited mustang was wounded, became unman-

ageable and threw him, and as he was rising from his fall he was shot by the Indian with an arrow through the shoulder, then fired the last load remaining in his pistol, and dispatched his troublesome antagonist.

Walker's endurance of fatigue and privation was as remarkable as his courage. The special duty assigned to him, he performed to the letter and spirit of his orders, no matter what dangers or difficulties intervened. On one scouting expedition, of which the full details are given by Mr. Oury, his associates, of whom Mr. Oury was one, finding their supplies exhausted, whilst the point of their destination was far distant, the route rendered almost impassable by rains, and the failure of part of their number to meet them at the rendezvous assigned, resolved to return home. Walker made no objection, but declared his purpose to carry out his orders, and go on alone to the place designated. His comrades at length concluded to accompany him and share his fate, and after great suffering from toil, exposure, and hunger, accomplished their mission.

A wider theatre of activity was about to open; the curtain, which concealed larger scenes in the near future, was about to rise; and, instead of border forays, a national struggle was soon to enlist his services. The annexation of Texas occurred. Gen. Taylor, with a force of little more than two thousand men, was sent to occupy the left bank of the Rio Grande; a depot of supplies was established at Corpus Christi, and Fort Brown, opposite Matamoras, constructed. This attempted occupation of the country between the Nueces and the Rio Grande was construed by Mexico as a declaration of war, and in the latter part of April, 1846, large bodies of the enemy were reported moving towards the Point, which had been left under the command of Maj. Munroe, with two companies of artillery, some seamen, and detachments from the crews of vessels in port. Capt. Walker, with a few picked men, after being once driven

back with loss by an overwhelming force, succeeded, after running the most imminent risks, on the 29th of April, in reaching Gen. Taylor's camp, at Fort Brown. The General at once determined to protect Point Isabel, and on the morning of May 1st, 1846, began his march there with the main body of the army, leaving the Seventh Infantry and two companies of artillery, all under the command of Maj. Brown, to complete the fort and to defend it, if attacked. The banks of the river on the Matamoras side were crowded with observers to witness the departure of what they deemed discomfited troops; the bells of the city rang, and a dispatch was sent by Gen. Arista to the City of Mexico announcing the retreat of the American army. The Mexicans were so excited by zeal, or the hope of plunder, that scarcely had Gen. Taylor reached Point Isabel, when they hurried forward in strong force to place themselves between it and the fort, and by a vigilant guard to intercept and prevent all communications between these points. Both of the American commanders looked to Walker, who proved himself equal to the emergency. Gen. Taylor, in his official report from Point Isabel of May 3d, characterizes him as "a tried frontier soldier," and both he and Maj. Brown, in dispatches dated May 4th, just before the battle of Palo Alto, warmly acknowledge his services in conveying intelligence from the beleaguered fort to army headquarters. These commendations, and from such sources, are extremely valuable; but they do not, and were not designed, to convey any adequate idea of the dangers encountered and difficulties overcome in this service. This can best be done by quoting again, in substance, from the graphic account given by Mr. Oury, who was one of his little band of scouts, and participated in the scenes he describes. Gen. Taylor having gone to the coast at Point Isabel with the main part of the army, the Mexican General took advantage of our divided condition to cross the Rio Grande, and threw his whole force between

Fort Brown and Point Isabel, thus cutting our small army in two, and at the same time bombarding Fort Brown. Several attempts were made by Maj. Brown to communicate with Gen. Taylor, but the Mexican lancers were scouring the whole plains, and every party making the attempt was driven back to the fort. In this emergency, Walker went to Maj. Brown and told him that if he would allow him to mount his men on the pick of his artillery horses, he would engage to deliver any dispatches he might desire to send to Gen. Taylor. The Major assented at once, and at dusk Walker, with fourteen men, started upon one of the most perilous journeys made during the war. Every pathway was strictly watched by Mexican cavalry. We were seen to leave the fort at dusk, and of course their vigilance was redoubled. Walker, finding it impossible to go by any open or known path, resolved to cut a new one with hatchet and bowie knife through six miles of the worst ticket it has ever been my lot to encounter. Add to the thorns, a night so dark that the nearest object was invisible, with not a star to guide our course, and the difficulty of the undertaking may be imagined. Fortunately, we had a man equal to the emergency in Cy Taylor, who was born on the Texas frontier, and possessed of an instinct as acute as the most sagacious of animals; and under his guidance a path was cut through the jungle, and at dawn we emerged upon the prairie, to the astonishment of the Mexicans, who had pickets of cavalry stretched along the whole front of the thicket. Fortunately for us, however, at the point where we came out there was no picket, the chapporal being deemed impassible, and we thus got a fair start over the prairie before the enemy could join in the pursuit. It was a thrilling chase on that early, still morning, for the handful of men hotly pursued by some five hundred hostile cavalry over the plain, where the slightest accident, the misstep of a horse, would doom its rider to certain death. The horses seemed to appreciate

the situation, and nobly met the demand upon their speed and endurance. After a chase of some twelve miles, and when within three miles of Point Isabel, the little party came in sight of a company of United States dragoons under Capt. May, who were out on a reconnaissance. These, seeing the plain covered with horsemen rapidly advancing, concluded that a general attack was intended, immediately hurried back to the post, and gave the alarm. We followed with all possible speed. Arriving at the top of some rising ground which had thus far obstructed the view of the fort, the artillery were seen standing to their guns ready to fire upon us and our pursuers. But Gen. Taylor was upon the parapet with a glass to his eye, and recognized Capt. Walker, the distance being little more than three hundred yards. Our pursuers fled back to their army. The distance from Point Isabel to Fort Brown was only twenty-three miles, and every shot fired during the bombardment of the latter place had been heard. The utmost anxiety for the fate of its small garrison prevailed. Our approach, and the tidings we brought, were awaited with intense eagerness. When the dispatches were delivered, and it became known that our flag still floated over Fort Brown, joy succeeded suspense, shouts and cheers went up—cheers for the flag, cheers for us who at such risk and with such labor had brought the glad news. Gen. Taylor at once decided to start on the following morning for Fort Brown with his small force of about two thousand men, although he knew that a well appointed army of eight thousand Mexicans lay ready to dispute his passage. The next day after starting was fought the battle of Palo Alto, and the next day, May 9, 1846, the decisive action at Resaca de la Palma. In both these engagements Walker bore a conspicuous part, and is frequently mentioned in the reports and contemporaneous accounts as out reconnoitering, and if the occasion warranted, "feeling" the enemy's position; subsequently accom-

panying and guiding the advance of an infantry column; aiding Lieut. Ridgeley to place his famous battery where it would do most execution, and as being at every point where his services were wanted.

In June following, Col. Hays having been commissioned Colonel, and raised a regiment of mounted men, designated as the First Texas Cavalry, but better known as Texas Rangers, came to Corpus Christi to complete its organization and obtain equipments. Walker's splendid record attracted to him public attention, not only in the army, but throughout the country. He was unanimously elected Lieutenant Colonel of this regiment, as efficient a body of men as were ever mustered into service. Indeed, it could not be other than effective with such leaders as Hays and Walker, and recruited from such tried material as Texas then furnished. The ladies of New Orleans procured for him a valuable sword, probably that in our collection; the people of Louisiana purchased for him a thoroughbred horse, and both were presented to him through Col. Baylie Peyton.

He accompanied, with his command, the movement to Monterey, in the Summer of 1846; was actively engaged in the siege and capture of that city, in September following, and received, as usual, high commendation in the official reports. In recognition of his merits, he was soon after commissioned by the President as Captain in the new regular regiment of mounted rifles, recently authorized to be raised and placed under the command of that distinguished officer, Col., afterwards Gen. Percifer F. Smith, and received the flattering permission of returning to the States for the purpose of selecting and recruiting his men. It was a pleasant experience for him to come back, covered with honor, to the home of his birth; and my friend, Gen. John R. Kenley, of Baltimore, a distinguished veteran of the Mexican war, and who, in the late war with the South, won

his star and position as division commander by deeds of gallantry, and in whose division I had, for a time, the honor of serving, writes to me that he well recollects Capt. Walker, and that after his appointment into the mounted rifles "he opened a recruiting office in Baltimore, and got many of our young men to join his flag." After filling up his ranks in Baltimore and elsewhere, he started to join his regiment in the column under Gen. Scott, then on its way from Vera Cruz to the capital. Arriving at Perote, which was garrisoned by a battalion of the First Pennsylvania Regiment, with small detachments of other troops, under command of Col. F. M. Wynkoop, of the First Pennsylvania Regiment, he was assigned to duty there, to aid in defending that important point, with its stores, its hospitals filled with sick and wounded, and to keep open the route of communication. The wilds and rocky passes of Las Vegas, of La Hoya, and the whole vicinity of Perote, were the favorite haunts of guerrilla parties, but the secrecy of Walker's night marches, his impetuous charges, and the terrible blows he inflicted, induced them to seek other and less dangerous scenes for their depredations. I had the honor of accompanying him one evening in tracing up some parties in Perote who, under orders of the Mexican Government, were issuing commissions and offering other inducements to our men to desert, and shall never forget his coolness, his courage, and skill as a detective.

You will observe an indentation in the scabbard of his sword. An explanation of the time, manner, and place of its occurrence was given verbally to the writer by Capt. Walker, and is incidentally and characteristically explained in his report, dated Perote, June 21, 1847. Gen. Cadwalader was on his way from Jalapa with troops and supplies for the army of Gen. Scott. It was learned that a large force of Mexicans had collected at La Hoya, between Jalapa and Perote, for the purpose of intercepting his passage, and at

ten o'clock on Saturday evening, June 17th, 1847, Col. Wynkoop, with the Pennsylvania battalion and Walker's company, in all about two hundred and fifty men, left the Castle, and moved down the national road to meet them. "We reached," says Col. Wynkoop, "the enemy's pickets about a mile beyond Las Vegas, and drove them in before daylight. In this charge Capt. Walker, who was in advance, encountered a fence, which threw his men, injuring some of them severely, and in the melee lost his own horse, and the horses of eight of his men." In the encounter which occurred later Col. Wynkoop adds, "Capt. Walker and his company deserve the greatest share in the honor of the fight. Before the arrival of the infantry, he held his position with thirty rifles against five hundred of the enemy, and had killed a number of them." Walker, in his report to Col. Wynkoop, says: "When ordered forward by you at three o'clock A. M. on the 20th, I understood from you that you had a picket about two hundred yards in advance. In this I was disappointed. I had not advanced more than a hundred yards before I was hailed by the enemy, who appeared about forty in number. I could not return, or delay a moment to reconnoitre, as I intended, without subjecting my command, and yours also, to a raking fire, and I immediately ordered the charge. The enemy was completely routed, and fired in such haste and confusion that none of my men were wounded; but, unfortunately, we found a curve in the road, while we supposed it to be straight, and a number of us were unhorsed by the falling of our horses over a fence, which was not seen until we were on it." In advance, as usual, when this misfortune occurred, he was amongst the first to fall, and the rest came plunging and piling upon him. It was here that his sword scabbard was bent and indented, and his escape from death, or serious injury, entitled him for once to be regarded as the lucky, rather than unlucky, Walker. Later on in the affair he

encountered a force of five or six hundred; his skirmishers were driven in; he dismounted his men, placed them under cover of a stone wall, extended his line to prevent flanking, and as the enemy came rushing on with shouts of triumph, Walker remarks, "The moment was critical. Many of my men had never been under fire before, and nothing but my confidence in their heroic valor and coolness would have induced me to remain in my position. At this moment I ordered the men to take their sabres from the fronts of their saddles, which had been secured in that way for the purpose of secret movements by night, and prepare to use them when it came to close quarters. The coolness and gallantry of my men, and the deadly crash of their rifles, soon convinced them it was better to retire. Their loss, as near as I could judge, was at least forty killed and wounded. My whole force, including those injured in the charge, was fifty-one."

In such encounters his time was employed until the following October, when he accompanied the movement of Gen. Lane to the relief of the beleaguered garrison of Puebla, and on the afternoon of the 9th, as stated in the beginning of this paper, at Huamantla, in the very moment of victory, of victory snatched from superior numbers, in the vigor of early manhood, and in the fulness of his fame, he ended his eventful and glorious life. "The news of his death," says Mr. Oury, "cast a gloom over the State of Texas." His remains were brought on to San Antonio, and, with all honors, buried by the side of those of his old comrade, Capt. Gillespie, killed in storming the heights above the Bishop's palace, at Monterey. A marble shaft, erected by a grateful people, on a beautiful slope overlooking the city, marks the place of their final repose.

In private life, Capt. Walker was exemplary in his habits, and used neither liquor nor tobacco in any form. In camp, he was a genial companion, open, frank, generous, always ready to do more than his share of the drudgery of camp

life, truthful and proverbially unselfish. As I recall his personal appearance, after the lapse of thirty-five years, he was of medium height, of sanguine temperament, with keen gray eyes, hair inclined to sandy, with a lithe, active form, capable of great endurance, an unassuming manner, quiet yet alert, quick of perception, fertile in resources, prompt, and, as his whole life evinced, fearless in action.

The foregoing statement, condensed from official reports, the letters of Mr. Oury, of Gen. Kenley and Maj. John A. Cummings, and from my own recollections, does not aspire to the dignity of a biographical sketch: its object was to gather up some of the facts that cluster about an old sword, and thus add to the interest and value of one of the relics in our collection.



